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ABSTRACT

A total of 12 kindergarten children participated in a study to determine whether children with auditory learning disability would achieve significantly better scores in reading when taught by the sight method as compared with the phonetic method of instruction and whether such children would exhibit significantly better self-concepts when placed in a sight reading program rather than a phonetic one. The children were placed into either an experimental or a control group. Both groups were pretested to insure the absence of sample bias with regard to age, intelligence, reading achievement, and self-concept. The experimental group used a program that initially employs a language experience approach and eventually becomes a sight reading program. This program was supplemented with comprehension lessons from a basal reader series. Phonics was not employed. The control group used a phonetic reading program in kindergarten, followed by a basal reader series in grades one and two. All of the children in both groups engaged in basic reading skills practice at least once a week. Posttesting was conducted at the end of each school year. The children in this study did not exhibit significant differences in either reading achievement or self-concept regardless of treatment. (FL)

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READING INSTRUCTION

SUMMARY: NOVEMBER, 1976-JANUARY, 1979

A STUDY OF THE EFFECTIVENESS OF SIGHT READING VERSUS PHONETIC INSTRUCTION FOR CHILDREN WITH AUDITORY LEARNING DISABILITY

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EAST PROVIDENCE SCHOOL DEPARTMENT

SILVER SPRING SCHOOL

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January, 1979

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HYPOTHESIS

Kindergarten teachers are faced each year with the dilemma of placing children into appropriate reading groups. Inevitably some children demonstrate keen decoding skills, while others are only beginning to grapple with phonics. Finally there are children who give evidence of seeming auditory perceptual problems. It is to this last group which the current research addresses itself.

Reading specialists offer conflicting advice regarding the remediation of auditory learning disability. On the one hand some advocate working on the child's area of strength -- supposedly the visual -- and thus advocate sight reading. In the opposing camp it is felt that working on the disability is the only way to improve achievement and emphasis is placed upon phonetic reading.

It is important to note that a computer and hand survey of the literature turned up only one study of rather poor experimental design which sought to compare the effectiveness of perceptual (sight) training versus phonetic training on reading achievement in children classified as "learning disabled." Newman found that "most" of the students in the perceptual and the phonics training programs showed significant educational growth on "many" of the reading subtests administered.[1]

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[1] D. Newman, "Perceptual Versus Phonics Training," Academic Therapy Quarterly, VIII (1972), 15-20.

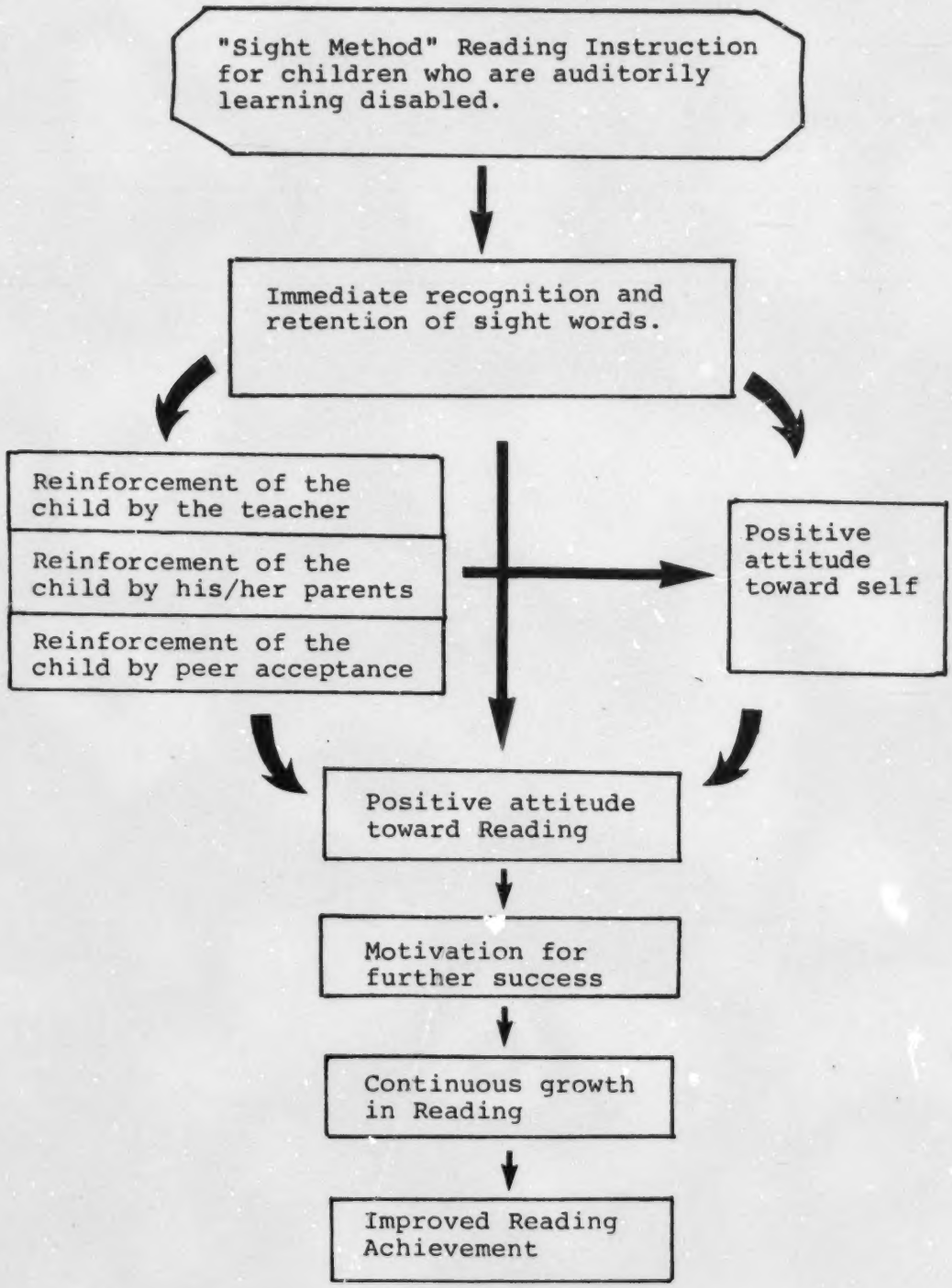
The type of learning disability in question was never described, nor did the experimenter consider the influence of such important factors as age, I.Q. and sex. Statistical methods and findings were not presented.

It is apparent that reading experts and classroom teachers alike are groping in the dark in their efforts to plan effective reading programs for children classified as auditorily learning disabled. The long-term merit of either the sight or phonetic approach with these children is in critical need of scientific study.

For purposes of this study it is hypothesized that children demonstrating auditory learning disability will achieve significantly better scores in Reading when taught by the "sight method" as compared with the "phonetic method" of reading instruction.

It is further hypothesized that children demonstrating auditory perceptual deficits will exhibit a significantly better self-concept when placed in a sight reading program rather than a phonetic one.

The chain of effects leading to the anticipated gains in reading achievement and self-concept are illustrated on page 3.


"Sight Method" Reading Instruction for children who are auditorily learning disabled.
Immediate recognition and retention of sight words.
Reinforcement of the child by the teacher
Reinforcement of the child by his/her parents
Reinforcement of the child by peer acceptance
Positive attitude toward self
Positive attitude toward Reading
Motivation for further success
Continuous growth in Reading
Improved Reading Achievement

SETTING

East Providence is by and large a middle-class community. At the outset of the experiment in 1976 Silver Spring School serviced 425 elementary school children of multi-ethnic background from grades kindergarten through six. The Ss were drawn from a pool of 50 kindergarteners in two sessions -- a.m. and p.m.

STUDY BACKGROUND

Any kindergartener who exhibited auditory-perceptual difficulty in his/her ability to discriminate initial consonant sounds after repeated and diversified classroom instruction and who further met the following criteria were considered eligible to participate in the study:

- No evidence of hearing impairment as determined by an audio-metric examination.
- Score of less than 33% on the subtest R3 - Auditory Discrimination of the Cooper-McGuire Diagnostic Word-Analysis Test and
- Score of 61% or less on the Goldman-Fristoe-Woodcock Auditory Discrimination Test.

Four bilingual children were excluded from the experiment as it was felt that they could not be tested fairly with their limited knowledge of English.

A pool of 16 children, 6 males and 10 females, was identified as auditorily learning disabled according to the criteria of the research proposal. These children were randomly assigned to either the experimental (sight reading) or the control (phonetic reading) group. Sex factors were controlled for and thus each

group consisted of 8 members, 3 males and 5 females. By January, 1979 natural attrition reduced the experimental group to 3 males and 4 females and the control group to 2 males and 3 females.

Pre-testing of both the experimental and the control groups to insure absence of sample bias with regard to age, intelligence, reading achievement and self-concept was done between March 2 and March 9, 1977.

The E administered all of the tests but the audiometric examination which was performed by the school nurse.

The experimental group used Bowmar's Breakthrough to Literacy Program which initially employs a language experience approach and eventually becomes a sight reading program. This program was supplemented on a limited basis with comprehension lessons in Houghton Mifflin and MacMillan series R. Phonics was not employed. The control group, when in kindergarten, used Alpha Time, a phonetic reading program followed by MacMillan series R in Grades 1 and 2. All of the children in both groups engaged in basic reading skills practice (much of it phonetic) in ad hoc groups set up for this purpose on an average of 1 reading period per week.

Post-testing was done in June, 1977, 1978 and January, 1979.

The experiment was terminated in January in order to insure that children in the experimental group would have as easy a transition as possible into a basal reading program. It was felt that this would be best achieved by the children's current teacher.

EVALUATION

At the outset of the experiment the following tests were administered in order to determine the presence of auditory-perceptual difficulty:

- Subtest R3 - Auditory Discrimination of the Cooper McGuire Diagnostic Word-Analysis Test (Auditory Discrimination I)
- Goldman, Fristoe, Woodcock Auditory Discrimination Test.

The experimental design provided for controls in sex, age, intelligence, reading achievement and self-concept. Pre-testing of the experimental and control groups to insure the absence of sample bias was as follows:

Intelligence: Peabody Picture Vocabulary Test

Reading Achievement: Peabody Individual Achievement Test (Reading Subtest)

Self-Concept: The Primary Self-Concept Inventory

Post-testing of both the experimental and control groups was done at the conclusion of Grades K, 1 and mid-year in Grade 2 in order to determine whether any differences existed between the two groups as a result of the experimental treatment with regard to reading achievement and self-concept. The Peabody Individual Achievement Test (PIAT) and the Primary Self-Concept Inventory were thus re-administered at the conclusion of Kindergarten. The PIAT was found to be an inadequate testing instrument for the purposes of this experiment and was subsequently replaced by the Botel Word Recognition Test.

An additional reading achievement post-test was also added. The vocabulary and comprehension subtests of the Gates MacGinitie Reading Tests were administered in Grades 1 and 2.

The Botel Auditory Discrimination Test (Auditory Discrimination II) was given at the conclusion of the Grade 1 and 2 programs. In addition the children's daily attendance records were reviewed.

All testing was done at Silver Spring School by the E. Various locations in the building were used depending upon availability. Although numerous testing sites were used, all were quiet with adequate lighting, ventilation and seating. No child took more than one test on any given day.

RESULTS AND DISCUSSION

Mean pre-test scores and t-values are presented in Tables I-III. It can be seen that at the outset of the experiment there were no significant differences between the experimental and the control group at the 5% level of significance. For the purposes of this research project it could be assumed, therefore that the Ss in the sight reading and the phonetic groups were the same with respect to sex, age, intelligence, reading achievement and self-concept both within and between groups prior to the launching of the program.

Post-test scores obtained in June, 1977 and 1978 and January, 1979 are summarized in Tables IV and V. The results through June, 1978 were not remarkable. In Kindergarten there was some indication that boys were more likely to be absent than girls, however this difference did not manifest itself in subsequent years. At the

conclusion of the first grade there was some evidence beginning to appear that all of the girls regardless of whether they were in the experimental or the control group achieved better scores in Reading both in Vocabulary and Comprehension. By the middle of second grade the superiority of the girls over the boys in work recognition skills became significant as measured by the Botel. The most important finding was also observed at the conclusion of the experiment in January, 1979. The children in the sight group demonstrated a significantly better self-concept than those in the phonetic group. It should be noted that when the data was analyzed for differences in reading achievement according to sex it was found that although all of the girls had higher achievement scores they did not, when taken as a group, have a higher self-concept. That is to say that regardless of whether the girls learned to read using a sight method or a phonetic reading program they did clearly better than the boys. Only the girls in the sight group had a corresponding high self-concept.

Over the 3 year period all of the children made steady gains in auditory discrimination skills regardless of the group that they were in.

The E who had the opportunity to observe both the sight and phonetic groups in kindergarten found the children in the experimental group to be more self-directed than those in the control group in that they worked better independently. These

children completed assignments without seeking teacher assistance, kept busy and were less distracted than those in the phonetic group.

The Grade One sight reading teacher observed that the children demonstrated a clear superiority in writing, putting sentences together, punctuation, etc. when compared with other children in her class who worked in a phonetic basal. The format of the Bowmar Breakthrough to Literacy Program caused some concern over comprehension skills which were remedied by having the children work specifically on this skill once a week in a basal. Testing at the conclusion of Grade One did not reveal any deficiencies in Reading Comprehension.

In Grade Two the sight reading teacher was concerned that the children were not receiving enough phonetic instruction. For this reason and to insure a smooth transition the children were phased into a phonetic basal in January and the experiment terminated. Phonics testing at that time indicated that the sight children were, in fact, not behind but slightly ahead of the phonetic group in this skill. The difference was not statistically significant however.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that children who suffer auditory perceptual deficits in kindergarten do not exhibit any significant differences with regard to sex, reading achievement and self-concept regardless of whether they learn to read using their visual or auditory mode until much later on -- in this case, Grade Two. The implications of this finding are rather important in that kindergarten and first grade teachers may not be immediately aware of the long-term consequences that various methods of reading instruction have on perceptually disabled children later in their school careers.

Although working on a child's area of strength or weakness was found to be immaterial in terms of reading achievement, only when a child was taught to read using his strength did he exhibit a good self-concept. Even the girls in the phonetic group who achieved good reading scores appear to have done so at the expense of a positive attitude toward themselves.

A possible limitation with regard to the finding about self-concept must be considered. Due to the structure at Silver Spring School where there are 2 classes of each grade, the sight and phonetic reading programs in Grades 1 and 2 were handled by 2 different teachers at each grade level. Teacher effect was a variable that could not be controlled. This limitation is tempered somewhat by the fact that although all of the children in the experiment did not share common teachers for Reading, most had the benefit of receiving instruction from both teachers in each grade during some part of the day. For instance, after the day's reading period was concluded a sight child might return to his

homeroom where the phonics teacher would present the day's Math, Social Studies, etc. lessons.

It is important to note that the concept of working on the children's weaknesses in auditory discrimination did not improve their ability to do phonics. The sight children who only did phonetic work once a week did slightly better in phonics than the group receiving daily phonetic instruction. It would seem that auditory discrimination is a maturational skill which is impervious to drill.

It is recommended that given a child with auditory perceptual difficulty, he be placed in a sight reading program where he will not experience the frustration which leads to a poor self-concept. It is further suggested that daily phonetic instruction for such a child does not produce the desired gains in this skill but merely causes the child to develop a poor self-image. Finally, it behooves teachers everywhere to look beyond the confines of their own classrooms and become informed as to how programs and methods that they select will affect children in subsequent years.

PRE-TEST RESULTS

TABLE 1

Mean Scores and t-Values

	$\bar{X}_1$ (Exp.)	$\bar{X}_2$ (Cont.)	t-score
Age (mos.)	66.38	67.00	.31
I.Q.	100.25	104.50	.88
Achievement	110.00	112.88	.67
Self-Concept	11.00	11.75	.51
Auditory Disc. I	16.88	20.00	.77

TABLE II

Intragroup Female/Male Analysis

	Experimental Group			Control Group		
	$\bar{X}_1$ (Female)	$\bar{X}_2$ (Male)	t-score	$\bar{X}_1$ (Female)	$\bar{X}_2$ (Male)	t-score
Age (mos.)	66.80	65.67	.42	66.20	68.33	.61
I.Q.	99.20	102.00	.34	104.40	104.67	.04
Achievement	109.60	110.67	.16	114.00	111.00	.44
Self-Concept	11.20	10.67	.28	11.80	11.67	.05
Auditory Disc. I	13.60	22.33	1.50	21.40	17.67	.66

TABLE III

Intergroup Female/Male Analysis

	Females			Males		
	$\bar{X}_1$ (Exp.)	$\bar{X}_2$ (Cont.)	t-score	$\bar{X}_1$ (Exp.)	$\bar{X}_2$ (Cont.)	t-score
Age (mos.)	66.80	66.20	.21	65.67	68.33	.90
I.Q.	99.20	104.40	.66	102.00	104.67	.90
Achievement	109.60	114.00	1.80	110.67	111.00	.03
Self-Concept	11.20	11.80	.27	10.67	11.67	.53
Auditory Disc. I	13.60	21.40	1.44	22.33	17.67	.89

POST-TEST RESULTS

TABLE IV

Mean Scores and t-Values

Date	Variable	$\bar{X}_1$ (Exp.)	$\bar{X}_2$ (Cont.)	t-score	Two-Tail Significance	Total Cases
6/77	PIAT	99.00	103.50	1.94	.073	16
	Self-Concept	10.13	9.00	0.79	.441	16
	Auditory Discrimination I	29.13	32.50	0.38	.712	16
	Days Absent	16.88	12.25	1.05	.311	16
11/77	Botel	8.44	6.07	1.79	.097	15
5/78	Botel	45.21	41.11	0.62	0.544	14
6/78	Gates Vocabulary	41.00	41.17	0.05	0.961	14
	Gates Comprehension	42.00	41.67	0.11	0.915	14
	Self-Concept	13.13	11.17	0.84	0.419	14
	Auditory Discrimination II	65.25	58.67	0.78	0.451	14
	Days Absent	10.38	8.83	0.40	0.693	14

(continued)

TABLE IV

(continued)

Date	Variable	$\bar{X}_1$ (Exp.)	$\bar{X}_2$ (Cont.)	t-score	Two-Tail Significance	Total Cases
1/79	Botel	62.38	63.84	0.15	0.881	12
	Gates Vocabulary	45.57	44.00	0.63	0.541	12
	Gates Comprehension	42.43	44.20	0.45	0.662	12
	Self-Concept	14.86	10.20	*3.72	0.004	12
	Auditory Discrimination II	84.00	80.00	0.57	0.584	12
	Days Absent	3.00	2.80	0.13	0.897	12

*Indicates Significance

TABLE V

Comparisons by Sex

Irrespective of Experimental Group

Date	Variable	$\bar{X}_1$ (Males)	$\bar{X}_2$ (Females)	t-score	Two-Tail Significance	Total Cases
6/77	PIAT	101.67	101.00	0.25	.808	16
	Self-Concept	10.17	9.20	0.65	.523	16
	Auditory Discrimination I	28.83	32.00	0.34	.737	16
	Days Absent	19.33	11.70	1.79	.094	16

(continued)

TABLE VI

(continued)

Date	Variable	$\bar{X}_1$ (Males)	$\bar{X}_2$ (Females)	t-score	Two-Tail Significance	Total Cases
11/77	Botel	7.00	7.50	0.32	.753	15
5/78	Botel	38.00	46.48	1.32	.212	14
6/78	Gates Vocabulary	38.20	42.67	1.40	.188	14
	Gates Comprehension	39.00	43.44	1.54	.150	14
	Self-Concept	12.20	12.33	0.05	.958	14
	Auditory Discrimination II	67.20	59.78	0.86	.409	14
	Days Absent	11.00	9.00	0.51	.619	14
1/79	Botel	51.00	71.55	*2.99	.014	12
	Gates Vocabulary	43.80	45.71	0.78	.454	12
	Gates Comprehension	41.00	44.71	0.98	.350	12
	Self-Concept	13.40	12.57	0.43	.674	12
	Auditory Discrimination II	85.60	80.00	0.81	.439	12
	Days Absent	3.2	2.7	0.32	.754	12

*Indicates Significance